Aura Validation Data Center Update
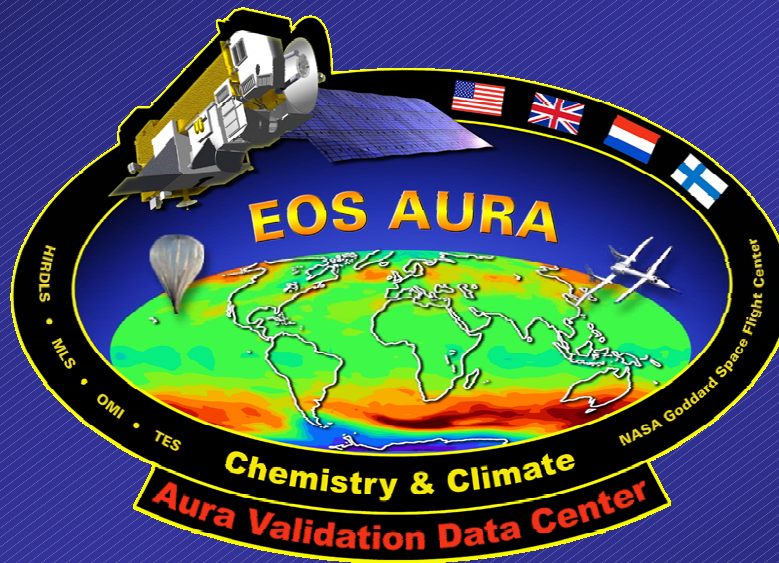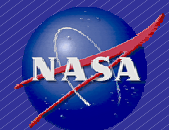

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AVDC Overview

- ✓ Central archive for Aura validation datasets
  - • http://avdc.gsfc.nasa.gov

- ✓ Supports the validation (and investigation) of Aura
  - • Aura instrument teams
  - • Investigators and contributors
  - • Field missions/campaigns

- ✓ Provides data subsetting and mission planning capabilities

Status

- ✓ Operational since February 2005

- ✓ Two major disruptions:
  - March 30-April 6, 2006 — RAID failure with partial data loss
  - July 28-August 6, 2006 — Web defacement incident

- ✓ Currently with 260 registered users
  - Global participation and interest
  - Up from 175 last November

- ✓ 120,000+ access to restricted web/data pages

- ✓ Total none Aura data: 140+GB correlative data

Aura Validation Data Center
Aura ST, September 2006
http://avdc.gsfc.nasa.gov/
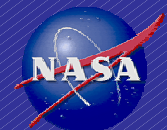
Available Tools

- ✓ **Web portal**
  - Data news, documentation, meeting proceedings, etc.
  - Fully searchable archive
    - HDF validation data
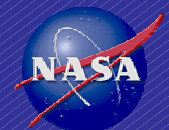   - Aura measurement coincidences with ground sites

- ✓ **Aura instrument FOVs**
  - Predictions and actual instrument FOVs

- ✓ **Download automatization tools**
  - Scripts and Java GUI available

- ✓ **HDF data conversion tools (read/write)**
  - HDF 5 support in final testing, to be released in October
  - Provided custom tools - for example SHADOZ format to HDF

Data Highlights

✓ **Aura datasets**
- Exclusive access point to provisional datasets
  - HIRDLS v2.x
  - MLS v2.1
  - OMI products

- Currently subsetting all 4 instruments

- AVDC stores all L2 data (through DAAC subscriptions)

- To host limited OMI L1 (October)
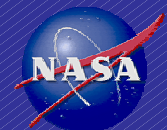
Data Highlights (2)

- ✓ **Validation data**
  - NASA field campaign data
    - Daily mirror of INTEX and AVE archives
    - Archive for the SAUNA and WAVES campaigns

  - Non-Aura satellite data
    - Recently added AIRS CO, temperature and ozone

  - Groundbased data:
    - NDACC (LIDAR and MWR), ESRL (sondes), MSC…
    - Limited NRA data

  - Miscellaneous
    - Recently added MOZAIC aircraft datasets for the early Aura period
   - IONS 2006 (Spring and Summer) sonde data
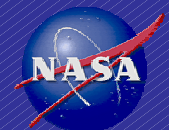
Collaboration

✓ **Coordination with campaigns/networks/PIs**
- Provide of OVP schedules and data subsets
- CR-AVE, AMMA, SCOUT-O3, SAUNA, WAVES, …
- Stations: for example NDACC and SHADOZ stations

✓ **Continue close coordination with the NDACC**
- Access to preliminary data in NRT (mainly LIDAR, MWR)
- Collaborative effort in data homogenization

✓ **ESA - GMES (future missions)**
- GECA (Generic Environment for Cal/Val Analysis) will be fully synchronized with AVDC and NDACC (kick-off later this month)
- Retroactive homogenization of existing ESA archives (started)
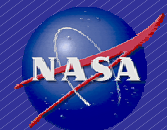
In Closing…

- ✓ Most data requests this Summer came within two weeks of the Science Team
  - All but one request was fulfilled
  - Many required accessing/providing "new" datasets

This is a prevailing issue…
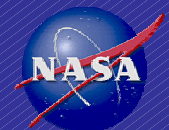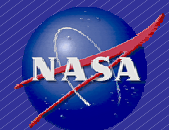
Information Flow

- ✓ **AVDC needs (timely) information such as …**
  - Latest Aura data availability including release dates and supporting documentation

  - Validation datasets
    - Satellite, mini-campaigns, etc.
    - Are they available? Are they updated? Contact information?

  - What is needed or could be of use?
    - … for example is there and in CALIPSO?

http://avdc.gsfc.nasa.gov
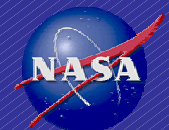
AVDC is available to all involved in Aura

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